

MN-D622-DIN

Distributed Motionnet 16-ch Isolated DI
16-ch Isolated DO Module

Features

- Maximum communication speed: 20 Mbps
- 16-ch isolated digital inputs, 16-ch isolated digital outputs
- Each Motionnet transfer line: connect modules up to 64
- Designing isolation protection: power, communication, I/O
- LED Diagnostics for communication and I/O status
- High current sinking capability (100 mA)
- Fast Output Response Time within 0.5 µs

Introduction

The **MN-D622-DIN** is an I/O expansion device for Motionnet systems, and is equipped with 16 isolated digital input channels and 16 isolated digital output channels. Each Motionnet communication line can be connected to up to 64 modules, meaning that the I/O can be expanded to up to 1024 input channels and 1024 output channels. The communication time required by each MN-D622-DIN is 15.1 us. If 64 modules have been connected, signals for 2048 points on 64 modules can be sent and received within 0.97 msec. The update of the I/O status is completed automatically through the Motionnet system at a constant interval, and setting interrupts for specific input points that the customer wants to monitor can help prevent CPU time from being wasted by repetitive polling when there is nothing else for the issuing process to do.

Specifications

Model	MN-D622-DIN
Hardware	
Connector	6-pin pluggable terminal block x 8
LED Indicators	
Status	Communication state (Link, Error) Internal 3.3 V Power Termination Resistor Switch Input/Output state
Digital Input	
Channels	16
Type	Wet Contact
Sink/Source (NPN/PNP)	NPN
ON Voltage Level	+10 ~ 24 VDC
OFF Voltage Level	+3 VDC max.
Isolation	2500 Vrms
Input Impedance	4.7 KΩ
Digital Output	
Output Channels	16
Output Type	Open Collector (Sink), with internal flywheel diode
Sink/Source (NPN/PNP)	Sink

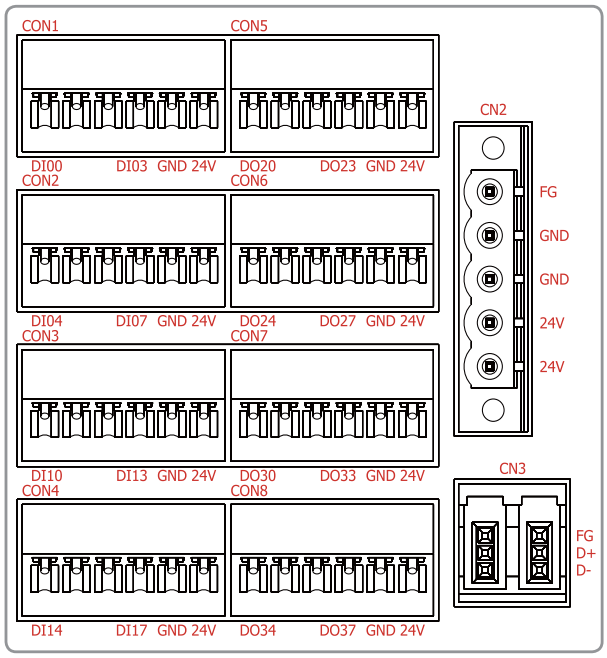
Model	MN-D622-DIN
Load Voltage	+30 VDC max.
Load Current	100 mA max. for each channel
Isolation Voltage	2500 Vrms
Motionnet	
Communication Connectors	Mini-clamp Connector x 2
Transfer Speed	Selectable 2.5, 5, 10 or 20 Mbps by DIP Switch
Cyclic Time	15.1 µs per device (20 Mbps)
Power	
Input Range	24 VDC (1000 V isolated)
Consumption	2 W Max.
Mechanical	
Casing	Aluminum
Dimensions (mm)	83 mm x 93 mm x 63 mm
Installation	DIN-Rail mounting
Environment	
Operating Temperature	0 ~ +60 °C
Storage Temperature	-20 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

Accessories

Mini Clamp Wiremount Plug			Applicable Wire			
ICP DAS Part No.	Cover Color	3M Part No.	AWG No.	Cross-sectional Area (mm2)	Finished External Diameter Φ (mm)	
4PKD1O0000001	Gray	37103-2206-000FL	20 – 22	0.3 – 0.5	1.6 – 2.0	
4PKD1O0000002	Red	37103-3101-000FL	24 – 26	0.14 – 0.3	0.8 – 1.0	
4PKD1O0000003	Orange	37103-3163-000FL	24 – 26	0.14 – 0.3	1.2 – 1.6	

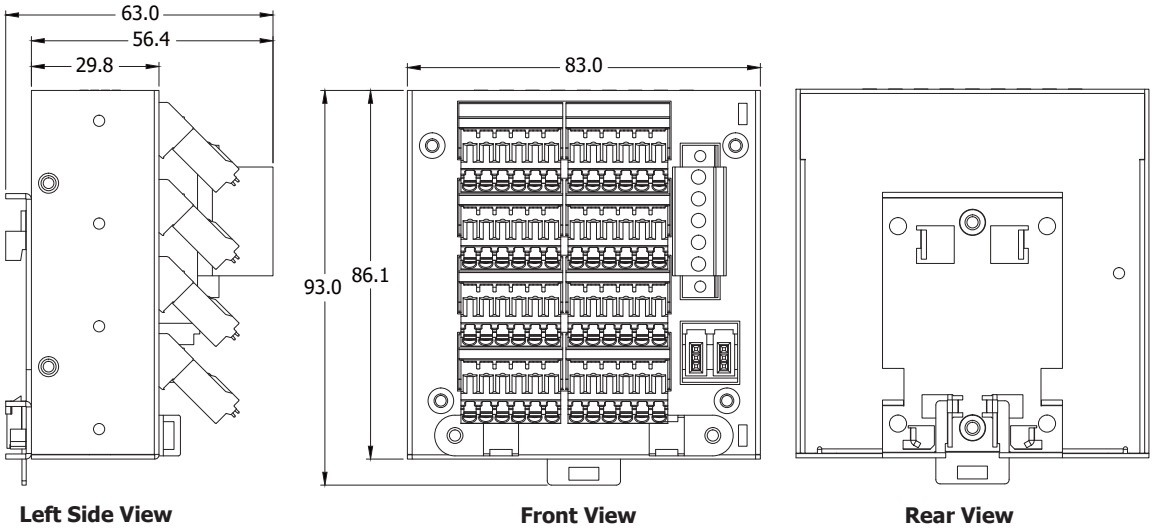
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Pin Assignments



NO.	Pin Define.	Specifications	I/O Define.
CN3			
1	F.G.	Frame Ground	-
2	Data+	Positive terminal of differential communication signal	Bidirectional
3	Data−	Negative terminal of differential communication signal	Bidirectional
CN2			
1	F.G.	Frame Ground	-
2 ~ 3	GND	External Ground	Input
4 ~ 5	24V	External 24V (+)	Input
CON1 ~ 4			
1 ~ 4	DIxx	Digital input channels 00 ~ 15	Input
5	GND	External Ground	Connect to CN2
6	24V	External 24V (+)	Connect to CN2
CON5 ~ 8			
1 ~ 4	DOxx	Digital output channels 00 ~ 15	Output
5	GND	External Ground	Connect to CN2
6	24V	External 24V (+)	Connect to CN2

Dimensions: (Units: mm)



Left Side View **Front View** **Rear View**

Ordering Information

MN-D622-DIN CR	Distributed Motionnet 16-ch Isolated DI, 16-ch Isolated DO Module with Mini-clamp Connector (RoHS)

Related Products

PISO-MN200(T/EC) CR	PCI Bus, Dual-line Motionnet Master Card (RoHS)
MN-SERVO-xxx(-EC) Series CR	Distributed Motionnet Single-axis Motion Control Modules (MJ3 / PA4 / YSV / DAA) (RoHS)
MN-2091U(-T) CR	Distributed Motionnet Single-axis Universal Motion Control Module (RoHS)
MN-MP4U-DIN CR	Distributed Motionnet Four-axis Universal Motion Control Module (RoHS)
MN-3254(T) CR	Distributed Motionnet 16-ch Isolated DI 16-ch Isolated DO Module (RoHS)
MN-3253(T) CR / MN-D640-DIN CR	Distributed Motionnet 32-ch Isolated DI Module (RoHS)
MN-3257(T) CR / MN-D604-DIN CR	Distributed Motionnet 32-ch Isolated DO Module (RoHS)
MN-AD8-DIN CR	Distributed Motionnet 8-ch Analog Input Module (RoHS)
MN-DA2-DIN CR	Distributed Motionnet 2-ch Analog Output Module (RoHS)
MN-HUB4(EC) CR	Distributed Motionnet 4 Port Hub Module (RoHS)

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